

GILA RIVER BASIN

09489500 BLACK RIVER BELOW PUMPING PLANT, NEAR POINT OF PINES, AZ

LOCATION --Lat 33° 28'36", long 109° 45'48", in W sec. 32, T.2 N., R.25 E. (unsurveyed), Graham County, Hydrologic Unit 15060101, in San Carlos Indian Reservation, on left bank 0.9 mi downstream from Phelps Dodge Corp. pumping plant, 1.3 mi downstream from Freezeout Creek, 8 mi northwest of Point of Pines, and 63 mi upstream from confluence with White River.

DRAINAGE AREA --560 mi².

PERIOD OF RECORD --June 1953 to current year.

GAGE --Water-stage recorder. Elevation of gage is 5,725 ft above sea level, from topographic map.

REMARKS --Records good except for estimated daily discharges, which are poor. Water is diverted at pumping plant 0.9 mi upstream and pumped into headwaters of Willow Creek (tributary of Eagle Creek) for mining, metallurgical treatment of ores, and domestic supply in vicinity of Morenci. (See sta 09445000.)

EXTREMES FOR PERIOD OF RECORD --Maximum discharge, 17,900 ft³/s Oct. 19, 1972, gage height, 18.0 ft, from floodmarks, from rating curve extended above 5,000 ft³/s; minimum daily, 2.6 ft³/s July 5, 1974.

EXTREMES FOR CURRENT YEAR --Peak discharges greater than base discharge of 500 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 5	2100	571	4.11
Aug. 9	1635	1500	5.36
Sept. 11	1600	919	4.62

Minimum daily discharge, 19 ft³/s June 19, 22, and 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	31	34	39	34	37	29	21	21	21	54	33
2	26	32	33	37	37	37	29	21	21	22	49	32
3	26	31	32	41	37	36	29	21	21	23	55	30
4	27	31	32	33	34	33	29	21	21	21	51	29
5	28	32	35	40	33	31	29	21	21	24	111	29
6	27	33	35	43	33	33	33	20	21	24	88	29
7	29	33	32	39	35	36	39	20	21	21	81	29
8	37	33	32	32	32	39	38	21	20	23	71	37
9	35	33	33	34	32	40	32	25	20	28	181	45
10	34	32	31	34	37	39	30	25	20	28	110	47
11	32	32	36	35	34	36	28	24	23	31	80	362
12	30	32	36	35	32	37	27	24	23	31	56	434
13	29	32	36	34	32	38	26	24	21	27	41	224
14	30	32	32	37	33	38	26	24	23	27	35	144
15	29	32	40	36	35	39	26	24	23	28	33	109
16	29	32	34	31	34	38	25	25	20	29	30	90
17	29	32	38	32	35	35	25	24	22	39	29	76
18	29	32	45	33	36	34	25	24	22	42	31	60
19	29	32	44	35	37	34	25	25	19	53	30	49
20	29	32	39	31	35	34	24	24	21	42	39	44
21	29	31	41	32	35	34	23	24	22	40	57	41
22	29	31	43	41	36	34	23	24	19	37	46	35
23	30	33	43	45	36	34	23	24	21	70	38	33
24	30	37	43	40	37	35	23	24	22	62	32	30
25	30	34	45	33	38	35	23	24	19	56	29	29
26	30	32	46	39	38	34	24	24	21	49	26	28
27	30	32	46	45	38	34	25	24	22	100	25	27
28	30	34	46	33	38	34	25	24	20	203	26	26
29	30	31	45	33	---	34	25	24	22	195	31	26
30	31	31	40	33	---	32	22	23	23	108	33	26
31	31	---	39	36	---	30	---	22	---	72	32	---
TOTAL	919	967	1186	1121	983	1094	809	718	635	1576	1630	2233
MEAN	29.65	32.23	38.26	36.16	35.11	35.29	26.97	23.16	21.17	50.84	52.58	74.43
MAX	37	37	46	45	38	40	39	25	23	203	181	434
MIN	25	31	31	31	32	30	22	20	19	21	25	26
AC-FT	1820	1920	2350	2220	1950	2170	1600	1420	1260	3130	3230	4430
CFSM	0.05	0.06	0.07	0.06	0.06	0.06	0.05	0.04	0.04	0.09	0.09	0.13
IN.	0.06	0.06	0.08	0.07	0.07	0.07	0.05	0.05	0.04	0.10	0.11	0.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2002, BY WATER YEAR (WY)

	1954	1954	1954	1954	1954	1954	1954	1954	1954	1954	1954	1954
MEAN	108.3	92.12	117.6	141.6	230.5	539.3	703.5	279.7	60.95	43.49	105.9	86.51
MAX	1211	505	915	1571	1036	1863	2253	1933	244	122	509	385
(WY)	1973	1995	1979	1993	1980	1985	1979	1973	1973	1965	1999	1963
MIN	13.6	22.7	20.0	23.0	34.7	30.1	27.0	22.5	9.84	14.1	18.2	9.36
(WY)	1954	1954	1954	1996	1974	1996	2002	1996	1974	1989	1962	1956

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR (*) 146.7 (**) 106210	FOR 2002 WATER YEAR (*) 44.7 (**) 32350	WATER YEARS 1954 - 2002
ANNUAL TOTAL	50871	13871	
ANNUAL MEAN	139.4	38.00	208.7
HIGHEST ANNUAL MEAN			617
LOWEST ANNUAL MEAN			38.0
HIGHEST DAILY MEAN	913	434	11000
LOWEST DAILY MEAN	23	19	2.6
ANNUAL SEVEN-DAY MINIMUM	25	20	5.4
ANNUAL RUNOFF (AC-FT)	100900	27510	151200
ANNUAL RUNOFF (CFSM)	0.25	0.068	0.37
ANNUAL RUNOFF (INCHES)	3.38	0.92	5.06
10 PERCENT EXCEEDS	439	46	557
50 PERCENT EXCEEDS	45	32	57
90 PERCENT EXCEEDS	29	22	24

(*) Mean, adjusted for Willow Creek Diversion from Black River near Morenci.
(**) AC-FT, adjusted for Willow Creek Diversion from Black River near Morenci.